

P.S. Since the above has been in print, Mr. Sc Slater has received a further consignment of birds from Mr. Brown. Amongst these are three specimens of *Myzomela*, namely:—a female of *M. slateri*; one of an entirely red species, probably = Ramsay's *M. coccinea* or *erythrina*, the receipt of which will enable the necessary comparisons of these species with *M. cruentata* to be made; and one of a species new to science.

5. On some new and little known Species of Araneidea, with Remarks on the Genus *Gasteracantha*. By the Rev. O. P. CAMBRIDGE, M.A., C.M.Z.S., &c.

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(Plates XXVI., XXVII.)

The Spiders described in the present paper are chiefly of the genus *Gasteracantha*, a genus well known and remarkable for the hard, horny epidermis of the abdomen, which is also armed with two, four, or six prominent spines, varying in length, strength, and direction, and issuing from different points of the margin. The abdomen is also marked on the upperside, and occasionally underneath, with numerous symmetrically disposed cicatricose spots, varying a little in number, size, form, and position. To these markings I have given, in the following descriptions, the name of *sigilla*, looking, as they do, very like *seals* impressed upon the abdominal surface. These *sigilla* probably indicate the points of attachment of muscular fibres, and are often useful in the determination of the species.

The number of Spiders of this genus, described by various authors, up to the present time, is about 170; many, however, are already ascertained, and many more will in time probably prove to be, synonymous with others. At first sight it would seem to be an easier matter to distinguish the species of *Gasteracantha* than those of many other genera. They are for the most part of good size; and the corneous, spiny abdomen, varying very much in its relative proportions and spines, furnishes characters so tangible that the species have for the most part been distinguished by these characters alone. No doubt these will always remain important characters, and in many instances decisive ones; but in some, at all events, the reception of a series of examples from the same locality leads me to suspect that there is a very great, and hitherto not sufficiently recognized, difference in the absolute as well as relative length, strength, and direction of the abdominal spines in different individuals of the same species. *Gasteracantha formosa*, Vins. (*infra*, p. 285, Pl. XXVI. fig. 11), is one instance of this; and *G. curvispina*, Guér., is probably another. Of this latter Spider (if I am right in my determination of the species) I have received a considerable series from the west coast of Africa; but no two individuals preserve exactly the same length, strength, or direction of the abdominal

spines. This will be found, I think, to be the case also with some other species when collectors will take the trouble to collect a series of examples, instead of being satisfied with a few or even single specimens of those forms which appear to differ most from each other. At present, therefore, it seems rather hazardous to describe, without reservation, as new species, Spiders of this genus differing only, or mainly, from others already described in the relative length, strength, or direction of some, or all, of these spines, especially if the spiders come from the same locality, and even though the difference in the spines may be considerable.

Another, often valuable, specific character, but almost unavailable in this group of Spiders, is the colour, and pattern formed by its distribution. The greater number of known species of *Gasteracantha* have been described from specimens dried and pinned like Coleoptera and other insects; and very frequently dried after having been for some time immersed in spirit of wine. The process of desiccation, under such circumstances, not only destroys the colouring, but very often itself alters the natural direction of the spines. We are probably therefore, in nine cases out of ten, totally ignorant of the true colours and markings of the *Gasteracanthides*. It is worth while noting, in proof of this, a description, from life, of a Spider included in the genus *Gasteracantha* by Mr. A. G. Butler (but probably belonging to a nearly allied one, *Peltosoma*, Sim.). The description referred to may be found in an account of the British Expedition against the Ashantees in 1874, 'Through Fanteeland to Coomassie,' by Frederick Boyle, p. 202, and is shortly as follows:— "The shell (of the abdomen) is about an inch across by half an inch in length, of the loveliest and most delicate yellow, scalloped at the edges, where occurs a dainty moulding of blue. Under the beautiful shell, protected by it on all sides, so that not even a claw projects beyond the cover, is the body and head, smooth and of a dark-red colour. Several were brought home. Captain Grant, 2nd W.I., has a handsome specimen." Thinking, from this account of its form and size, that this spider might possibly be identical with Mr. Butler's species (*Gasteracantha cambridgii*, Butl., Trans. Eut. Soc. Lond. 1873, p. 175, pl. iv. fig. 8), I sent a drawing of the latter to Captain Grant, who at once recognized it as the same species. Captain Grant's specimen was unfortunately lost on the way home; and I had therefore no opportunity of examining it; its identity, however, with the Spider above named may, I think, be taken as certain.

I have several dried examples of *Gasteracantha cambridgii* from the west coast of Africa, and have examined others in the Oxford University Museum, as well as in the British Museum. These are entirely of a uniform dull muddy-brown hue, and do not possess the slightest trace of the beauty described (and, I have no doubt, correctly described) by Mr. Boyle. It is very probable that preservation in spirit of wine might have retained something, if not all, of the original colours and markings of this Spider. I have in spirit numerous species of *Gasteracantha*; and many of them show great

vividness of colouring, as well as distinctness of markings. This is very seldom the case with dried specimens, of which I possess some similar in species to those preserved in spirit; but the former give no idea at all of the colours and pattern shown in the spirit-preserved examples.

Among the species of *Gasteracantha* described below is a very minute male adult (*G. rogersi*, sp. n., p. 292, pl. XXVII. fig. 23), from the river Coanza. This is as yet only the second male described in the genus. Few collections of Spiders come from exotic regions without containing (more or fewer) examples of the female sex; but, excepting in the two instances mentioned, the male sex appears to be nonexistent. This latter sex (as in those two cases) is probably always a pygmy compared with the female, and is very likely a good deal, if not altogether, different in respect of its abdominal armature. The females sit quite exposed in their orbicular snares, and so need a defensive armature, which the males do not require if they are, as I imagine, almost always, if not invariably, very minute, and live mostly in some kind of concealment or other—being also perhaps, compared with the female, very short lived. Two others of the Spiders here described are remarkable, and I believe quite novel, in their form—*Gasteracantha crepidophora*, sp. n. (p. 287, Pl. XXVII. fig. 14), from Dorey, New Guinea, and *G. acrosomoides*, sp. n. (p. 289, Pl. XXVII. fig. 19), from Madagascar. The two larger spines of the former very exactly resemble a pair of sharp-toed boots; and the latter is exceedingly like some spiders of the genus *Acrosoma*.

















